UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,227	04/01/2004	Akihiro Takahashi	P24814	5377

7055 7590 05/18/2007
GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER	
ROBERTS, JESSICA M	

ART UNIT	PAPER NUMBER
2609	

NOTIFICATION DATE	DELIVERY MODE
05/18/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

Office Action Summary	Application No.	Applicant(s)	
	10/814,227	TAKAHASHI, AKIHIRO	
	Examiner	Art Unit	
	Jessica Roberts	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-13 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because as disclosed in the specification for fig. 2, the effective lines are denoted by "1-n", however, in fig. 2A the effective lines are labeled "n-1". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, it is not clear or further outlined in the specification as what is to be superimposed with the digital information. The examiner is taking the position that superimposing and superimposed is to be extra processing of the video signal since this is not further outlined in the specification.

Claims 2-13 are rejected for being dependent upon rejected claim 1.

Claim 7 is rejected under 35 U.S.C. 112, fourth paragraph, as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> **(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.**
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Higuchi et al. US 2001/0022612.**

Regarding claim 1, Higuchi discloses an electronic endoscope system having an electronic endoscope (**10**) and a processor (**20**) that processes an output of the electronic endoscope, the electronic endoscope including: an image capturing element (CCD, **13**) adapted to capture an image of an object to be observed; a signal processing circuit (correlated double sampling unit in conjunction with the analog digital converter and the digital video processor, [0021] and **18-19**) that receives the output of the image capturing element and generates a digital video signal (It is inherent that the system generates a digital video signal with the use of the analog to digital converter and the digital video processor) ; a digitized information outputting system (**10**) that outputs digitized information representing at least information intrinsic to the electronic endoscope and control information for the processor (information is communicated between the microcomputer **21** at the side of the endoscope and the microcomputer **35** for the processor [0025] and **21**, **35**); and a digitized information superimposing system that superimposes the digitized information (digital video processor, **20**. The examiner takes the position that superimposing is nothing more than additional processing, and the digital video processor performs additional processing such as amplification, white balance, gamma amendment, etc [0021]) output by the digitized information outputting system on the digital video signal output by the signal processing circuit (correlated double sampling circuit in

conjunction with the analog-digital converter and digital video processor, [0021] and **18-19**).

Regarding claim 2, Higuchi further discloses the electronic endoscope is provided with a storage (EEPROM, [0022] and **22**), which stores the information intrinsic to the electronic endoscope, the digitized information outputting system retrieving the information intrinsic to the electronic endoscope from the storage (microcomputer for performing an integral control on each circuit, [0022] and **21**).

Regarding claim 3, Higuchi further discloses the information intrinsic to the electronic endoscope includes a type of the electronic endoscope (EEPROM, [0022] and **22**).

Regarding claim 4, Higuchi further discloses the electronic endoscope outputs the digital video signal including the superimposed digitized information to the processor (the luminance and color difference signals are output from the digital video processor, [0030]), and wherein the processor processes the digital video signal extracted from the output of the electronic endoscope in accordance with the information intrinsic to electronic endoscope ([0030]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 5- 9, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi 2001/0022612 in view of Wada US 7,053,926.

Regarding claim 5, Higuchi fails to disclose the electronic endoscope is provided with at least one operable member which can be operated by a user, and wherein the digitized information outputting system outputs the control information in response to an operation of the at least one operable member. However, Wada discloses at least one operable member which can be operated by a user (Wada; freeze switch, **11**), and wherein the digitized information outputting system outputs the control information in response to an operation of the at least one operable member (Wada; microcomputer, col. 4 lines 62-66 and **30**).

Therefore, taking the combined teaching of Higuchi and Okada as a whole, it would have been obvious to for the endoscope to have at least one operable member so that the endoscope can easily form an image at a desired magnification, can obtain a still image itself, positioned in optimum conditions, in

a state where the still image is enlarged, and moreover, can record the still image, which is enlarged, in a recording device through easy operation.

Regarding claim 6, the combination of Higuchi and Wada further teach the processor includes an extracting system that extracts the digitized information from the digital signal including the superimposed digitized information (Higuchi; mirror circuit in conjunction with the contour enhancing circuit and color conversion circuit, **26-28** [0030]).

Regarding claim 7, the combination of Higuchi and Wada further teach the processor includes a controller that controls a device to which the digitized information as extracted is directed (Higuchi and Wada both disclose a processor in which they both contain a microprocessor for controlling the processor. Furthermore, it's notoriously known that a processor would include a controller).

Regarding claim 8, the combination of Higuchi and Wada further teach the processor is connected with a displaying device (Wada; monitor col. 4 line 38 and **38**), the controller controlling the displaying device in accordance with the control information represented by the digitized information (Wada, microcontroller performs various kinds of control, col. 4 lines 59-61 and **30**).

Regarding claim 9, the combination of Higuchi and Wada further teach the processor is connected with a printing device (Wada; recording device, col. 4 lines 36-39 and **17**), the controller controlling the printing device in accordance with the control information represented by the digitized information (Wada, microcontroller performs the transmission of the record trigger signal to recording device, col. 5 lines 25-29 and **36**).

Regarding claim 13,the combination of Higuchi and Wada further teach the electronic endoscope generating a digital video signal (A digital video signal will result from the use of the analog to digital converter and the digital video processor); the electronic endoscope superimposing control information to control the processor on the digital video signal (Higuchi; microcomputers **21,35**. Furthermore, the each of the microcomputers **21** and **35** controls each circuits such that the optimum image process can begin [0025]); the electronic endoscope transmitting the superimposed digital video signal including the control information superimposed (Wada; **28, 30**. Furthermore, it is implied that the microcomputer controls the endoscope and is fully capable of transmitting control information to the digital video processor in order to output both the digital video data and control information); the processor receiving the superimposed digital video signal and extracting the control information (Higuchi; mirror circuit in conjunction with the contour enhancing circuit and color conversion circuit, **26-28** [0030]) ; and the processor operating in accordance with the control information (Higuchi; the microcomputer in conjunction with ROM, the microcomputer integrally controlling each circuit in the processor and the ROM stores the process information obtained by the processor device [0025] and **35,26**).

8. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi, 2001/0022612 in view of Okada, US 10/703,633.

Regarding claim 10, Higuchi fails to disclose the digital video signal output by the signal processing system includes luminance signal and color difference signals which are multiplexed in accordance with a time-division multiplexing

method. However, Okada discloses the digital video signal output by the signal processing system includes luminance signal (luminance [0025]) and color difference signals (color difference [0025]) which are multiplexed in accordance with a time-division multiplexing method (time division modulation [0024]).

Therefore, taking the combined teaching of Higuchi and Okada as a whole, it would have been obvious to use time division multiplexing as claimed in order to minimize the number of cables required to connect electrically an electronic endoscope and an external device such as a processor device together, thus preventing the inappropriate connection of or possible damage to connection pins, and the mixture of noise and reducing the amount of radiated unwanted electric waves.

Regarding claim 11, the combination of Higuchi and Okada further teach the digitized information superimposing system superimposes the digitized information such that the luminance signal, color difference signals and the digitized information are multiplexed in accordance with a time-division multiplexing method (time division modulation [0024]).

Regarding claim 12, Higuchi and Okada as a whole fails to teach wherein the multiplexed luminance signal, color difference signals and the digitized information is a parallel digital video signal, and wherein the electronic endoscope further includes a converting system that converts the parallel digital video signal into a serial digital video signal. However, Official Notice is taken that both the concept and the advantage of providing the limitations as claimed are notoriously well known and expected in the art, and therefore would have

been obvious to incorporate in Okada for the benefit of outputting the digital video signal to various peripheral devices for displaying, printing, or controlling purposes.

Contact

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Roberts whose telephone number is (571) 270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jessica Roberts/

VU LE
SUPERVISORY PATENT EXAMINER